UNIVERSITY OF LOUISIANA AT LAFAYETTE

PHYSICS 160

Catalog Data: Astronomy of the Solar System. (3,0,3). Introduction astronomy for the general student. Primary emphasis on Solar System. Representative topics include: Seasons, phases of the moon, motions of the Earth and planets, history of Earth and Solar System, description of individual planets and their moons, comets, formation of the Solar System, prospects for the life in other solar systems. No physics background required.

Textbook: *Astronomy, Volume 1 – Customized* - Arny

Coordinator: Daniel P. Whitmire, Professor of Physics

Topics:

1. Overview of contents of known universe (l hr)
2. History of Astronomy including Kepler's laws and Newton's law of gravity (8 hr).
3. Patterns in motions of Sun, planets, stars (l hr)
4. Radioactive dating on Earth (l hr)
5. Seasons (l hr)
6. Phases of moon (l hr)
7. Eclipses (l hr)
8. Tides and tidal evolution of Moon (l hr)
9. Solar System contents/motions (l hr)
10. Sun (l hr)
11. Mercury and Venus (l hr)
12. Greenhouse effect on Venus (l hr)
13. Earth as planet/atmosphere/differentiation/evolution (2 hr)
14. Mars/geology/atmosphere/life (l hr)
15. Comparison of evolution of Venus, Earth, Mars (l hr)
16. Asteroids
17. Jupiter and Saturn (l hr)
18. Galilean moons (2 hr)
19. Uranus and Neptune (2 hr)
20. Titan, Triton, Pluto, Charon (2 hr)
21. Comets/Oort cloud/residual belt (3 hr)
22. Origin of Solar System (2 hr)
23. Other planetary systems (l hr)
24. Life in the Universe (l hr)

Grades: Grades will be assigned based on the student's performance on examinations, quizzes, and/or other assignments. A schedule of these will be provided separately.